

REMARKS/ARGUMENTS

Reconsideration of the present application is respectfully requested. Claims 1-5 have been canceled, claims 22-24 have been newly added, and claims 6, 10, 11, 16, 17, and 21 have been amended. Thus, claims 6-24 remain pending with claims 6, 11, and 17 being independent.

In the specification, paragraphs [0029] and [0033] have been amended, as suggested in the Office Action dated December 29, 2005, to overcome the objections therein. Paragraph [0029] has been amended to correct the reference number of element "body 40." Paragraph [0033] has been amended to include the modifier "collet" before element "cam 90." Applicant respectfully submits that the objections to the specification have been overcome and that such objections should be withdrawn.

In the Office Action, claims 10, 16, and 21 are objected to for various informalities. Claims 10, 16, and 21 have been amended as suggested in the Action. Therefore, Applicant requests that the objections be withdrawn.

Also, claims 17-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, claim 17 assertedly includes insufficient antecedent basis for the limitation "said collet cam." Applicant respectfully notes that claim 17 recites a locking mechanism that includes "an elongated, tubular collet cam. . . ." Applicant submits that this limitation provides sufficient antecedent basis for the subsequent limitation of "said collet cam." Nevertheless, for further clarification, Applicant has amended claim 17 so that "said collet cam"

presently reads as "said tubular collet cam." Thus, Applicant submits that sufficient antecedent basis exists for the amended limitation and that the rejection should consequently be withdrawn.

Turning to the substantive rejections in the Office Action, claims 6-10 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,983,455 to Polzin et al. (the "Polzin et al. '455 patent"). Claims 11-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,380,097 to Pharris (the "Pharris '097 patent"). Claims 1-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,701,578 to Lu (the "Lu '578 patent") in view of U.S. Patent Publication No. US 2005/0129456 to Van Der Sluis (the "Van Der Sluis '456 publication"). Claims 1-5 have been canceled, and the rejection of these claims is consequently now moot. Moreover, Applicant respectfully submits that none of the prior art references of record, when considered singly or in combination, show or suggest the use of the structure recited in the remaining claims.

Turning to the pending claims, independent claim 6 recites an extension pole comprising an elongated pole section having one end thereof adapted for supporting any one of a number of fixtures, said one end including an outwardly projecting tool supporting and securing element, said element including first and second threaded portions, and a threadably mounted locking member disposed about the first threaded portion, said second threaded portion operable for threadably receiving a fixture, said member operable for engaging an end of the fixture, said threaded portions having thread pitches different from each other.

The structure recited in claim 6 enables an extension pole with several advantages. For example, one advantage occurs where the first threaded portion includes a smaller thread pitch than the second threaded portion. The relatively large thread pitch permits the fixture to be quickly screwed onto the pole end with a minimal number of rotations, while the relatively small thread pitch permits the locking member to be threaded into firm locking engagement with the fixture through the application of relatively low torque.

Independent claim 11 recites an extension pole including, among other things, an elongated, tubular outer pole section, an elongated inner pole section, and a locking mechanism. The inner pole section is telescopically received within the outer pole section and shiftable relative thereto. The locking mechanism is for locking the inner pole section at any one of the number of different positions relative to the outer pole section. The locking mechanism includes, among other things, an elongated, tubular collet cam and a chuck. The tubular collet cam is disposed about and is operatively coupled with the outer pole section and has at least a pair of body sections and a corresponding pair of axially projecting, resilient locking segments. Each of segments has an elongated, axially extending connection portion and an unrestrained, axially extending margin remote from the connection portion. Each of the segment margins is radially displaceable relative to the corresponding connection portion. Each of the segment margins is attached to the respective body section by the connection portion and cantilevered from the connection portion in a circumferential direction. The chuck is shiftable secured to the outer pole section and is adjacent

the collet cam. The chuck upon shifting thereof is operable to inwardly displace the segment margins in order to lock the inner pole section relative to the outer pole section.

The structure recited in claim 11 enables an extension pole with several advantages. For example, one advantage is that the telescopic pole sections are selectively locked by only limited rotational movement of the locking mechanism. Such movement may, in some instances, be accomplished by a single turn of a user's wrists and occurs in a very brief period of time.

Independent claim 17 recites an extension pole broadly including an elongated, tubular outer pole section, an elongated inner pole section, and a locking mechanism. The elongated inner pole section is telescopically received within the outer pole section and is shiftable relative thereto. The locking mechanism is for locking the inner pole section at any one of the number of different positions relative to the outer pole section. The locking mechanism broadly includes an elongated, tubular collet cam and a chuck. The elongated, tubular collet cam is disposed about and is operatively coupled with the outer pole section and has a pair of resilient locking segments. Each of the segments has a region with a radial outer dimension that progressively increases in a circumferential direction. The chuck is shiftable secured to the outer pole section and is adjacent the tubular collet cam. The chuck upon shifting thereof is operable to displace the segments in order to lock the inner pole section relative to the outer pole section. The chuck is rotationally mounted to the outer pole section and has surfaces each with a radial inner dimension that progressively increases in the circumferential direction. The surfaces are spaced adjacent the segments for

engaging the regions and camming the segments into frictional locking engagement with the inner pole section as the chuck is rotated relative to the collet cam.

Turning to the prior art references of record, the Polzin et al. '455 patent discloses a multi-faceted extension pole including outer and inner poles 30,32 that are telescopic relative to each other and a locking mechanism 34 that selectively locks the poles 30,32. The locking mechanism 34 includes a collet 88 and chuck 90. The chuck 90 engages the collet 88 so that flanges 96 of the collet 88 are shiftable to frictionally engage a tube 54 of the inner pole 32. The pole 10 includes a tool-supporting portion 19 that is threaded for receipt within the internally threaded socket of mounting portion 14 of the tool 12. The tool 12 is screwed into engagement with the pole tip 37, which is (non-rotatably) fixed to the inner pole 32 by fastener 38.

Again, the Polzin et al. '455 patent is cited only against original claims 6-11. Applicant respectfully submits that the use of the structure recited in these claims is not shown or suggested by the Polzin et al. '455 patent. In particular, the Polzin et al. '455 patent fails to show or suggest the use of a threadably mounted locking member disposed about a first threaded portion of the tool supporting and securing element, as recited in amended claim 6. Instead, the Polzin et al. '455 patent shows a pole tip 37 fixedly secured to the end of the inner pole 32. In other words, the Polzin et al. '455 patent has absolutely no showing of a threadably mounted locking member for engaging the end of the tool. Manifestly, the Polzin et al. '455 patent does not show a tool supporting and securing element having first and second threaded portions with different thread

itches. The tool-supporting portion 19 of the Polzin et al. '455 patent includes a thread with a single thread pitch for engaging an end of the tool 12 when the tool 12 is coupled onto the portion 19.

Although the Polzin et al. '455 patent has not been applied against independent claims 11 and 17, Applicant will briefly discuss why this reference is also deficient in showing or suggesting the use of the structure recited in these claims.

In regard to amended claim 11, the Polzin et al. '455 patent fails to show or suggest an extension pole with a collet cam having a pair of resilient locking segments where each of the segments has an elongated, axially extending connection portion and an unrestrained, axially extending margin remote from the connection portion, with each of the segment margins being attached to the respective body section by the connection portion and cantilevered from the connection portion in a circumferential direction. The Polzin '455 patent only discloses flanges 96 that extend axially so that the margins of flanges 96 cannot be cantilevered in a circumferential direction from a connection portion.

With respect to amended claim 17, the Polzin et al. '455 patent also fails to show or suggest an extension pole with a chuck and collet cam, where the collet cam has segments that each have a region with a radial outer dimension that progressively increases in a circumferential direction and the chuck has surfaces each with a radial inner dimension that progressively increases in the circumferential direction, and where the surfaces are spaced adjacent the segments for engaging the regions and camming the segments into frictional locking engagement with the inner pole section as the chuck is rotated relative to the collet cam. Instead, the Polzin et al. '455 patent shows a chuck

and collet where the chuck is devoid of a camming surface with a radial dimension that progressively increases in the circumferential direction, as recited in amended claim 17. Further, the camming interengagement in the Polzin et al. '455 patent occurs as a result of the relative axial movement between the chuck and collet, as opposed to relative rotational movement.

The Pharris '097 patent discloses a paint roller extension handle including tubular members 21,50 and sleeves 25,40. Sleeve 25 is attached to member 21 and sleeve 40 is received on and engages sleeve 25 so that fingers 30 may selectively engage member 50 and thereby hold the tubular members 21,50 relative to each other. That is, as the sleeve 40 is rotated onto sleeve 25, the corresponding axial relative movement causes progressive engagement of the tapered camming surfaces 31,44, which displaces the fingers 30 inwardly into frictional engagement with the handle member 50.

The Pharris '097 patent fails to show or suggest the structure recited in the amended independent claims 11 and 17.

With respect to amended claim 11, the Pharris '097 patent fails to show or suggest an extension pole with a collet cam having a pair of resilient locking segments where each of the segments has an elongated, axially extending connection portion and an unrestrained, axially extending margin remote from the connection portion, with each of the segment margins being attached to the respective body section by the connection portion and cantilevered therefrom in a circumferential direction. The Pharris '097 patent only discloses circumferentially spaced fingers

30 that extend axially so that the margins of fingers 30 cannot be cantilevered in a circumferential direction from a connection portion.

In regard to amended claim 17, the Pharris '097 patent also fails to show or suggest an extension pole with a chuck and collet cam, where the collet cam has segments that each have a region with a radial outer dimension that progressively increases in a circumferential direction and the chuck has surfaces each with a radial inner dimension that progressively increases in the circumferential direction, and where the surfaces are spaced adjacent the segments for engaging the regions and camming the segments into frictional locking engagement with the inner pole section as the chuck is rotated relative to the collet cam. Similar to the Polzin et al. '455 patent, the Pharris '097 patent shows a chuck and collet where the chuck is devoid of a camming surface that extends progressively inwardly along a circumferential direction. Again, the camming interengagement in the Pharris '097 patent occurs as a result of relative axial movement between the chuck and collet, as opposed to relative rotational movement.

Any of the above references of record, when considered singly or in combination with any of the other references of record, also fail to disclose or suggest the use of structure recited in the pending claims.

In view of the foregoing, it is respectfully submitted that the invention recited in independent claims 6, 11, and 17 is allowable over the prior art references of record. Claims 7-10 and 22 depend from claim 6; claims 12-16 depend from claim 11; and claims 18-21, 23, and 24

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depend from claim 17. These dependent claims recite additional features of the invention not shown or suggested in the prior art.

Therefore, the present application should now be in condition for allowance and such allowance is respectfully requested. Should the Examiner have any questions, please contact the undersigned at (800) 445-3460.

A 2-month Petition for Extension of Time accompanies this Amendment, along with authorization to charge \$225.00 to the undersigned's Deposit Account No. 19-0522 for the petition fee set forth in 37 C.F.R. § 1.17(a). Furthermore, the Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to said Deposit Account.

Respectfully submitted,

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